

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2004/006817	International filing date (day/month/year) 24.06.2004	Priority date (day/month/year) 21.07.2003
International Patent Classification (IPC) or national classification and IPC A23L1/302, A23L1/304, A23L1/30, A61K33/26, A61K33/30		
Applicant UNILEVER N.V. et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 22.12.2004	Date of completion of this report 20.01.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Couzy, F Telephone No. +49 89 2399-	



**INTERNATIONAL PRELIMINARY REPORT
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International application No.
PCT/EP2004/006817

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-21 as originally filed

Claims, Numbers

1-15 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 14-15
because:
 - ☒ the said international application, or the said claims Nos. 14-15 relate to the following subject matter which does not require an international preliminary examination (specify):
see separate sheet
 - ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☐ no international search report has been established for the said claims Nos.
 - ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
 - ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
 - ☐ See separate sheet for further details

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

III.1 Since claims 14-15 may encompass methods of treatment of the human body (Rule 67.1(iv) PCT), no opinion will be formulated with respect to the **industrial applicability** of the subject-matter of these claims (Article 34(4)(a)(I) PCT).

III.2 For the assessment of said claims 14-15 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

V.1 Reference is made to the following documents:

- D1: WO 03/003981 A (SMITH KYL L ;VITAL BASICS INC (US)) 16 January 2003
- D2: DATABASE WPI Week 1997 Derwent Publications Ltd., London, GB; AN 1997-213445 XP002292286 GAO C, HUANG T, ZHANG W: "Nutritious oral liq. contg. natural ingredients. vitamins and trace elements, promotes bone growth and brain development" & CN 1 097 607 A (MEDICAL INST 999 ENTERPRISE GROUP) 25 January 1995
- D3: DATABASE WPI Week 1997 Derwent Publications Ltd., London, GB; AN 1997-458010 XP002292287 CHEN W, JIANG X, LIU J: "Nutritious soy sauce and its production" & CN 1 117 816 A (CHEN W) 6 March 1996
- D4: DATABASE WPI Week 2003 Derwent Publications Ltd., London, GB; AN 2003-514435 XP002292288 ZHAO G: "Production method of coated and shaped tablet health-care food with the functions of increasing body height and reducing weight for youngsters" & CN 1 411 747 A (ZHAO G) 23 April 2003
- D5: US 2002/045660 A1 (O'CONNOR DEBORAH L ET AL) 18 April 2002

- D6: NEUMANN C, HARRIS DM, ROGERS LM: "Contribution of animal source foods in improving diet quality and function in children of the developing world" NUTRITION RESEARCH, vol. 22, 2002, pages 193-220, XP002257664
- D7: WO 00/62812 A (ADVOCARE INTERNAT LLC) 26 October 2000
- D8: US 2003/044472 A1 (LANG PHILIP C) 6 March 2003
- D9: DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; SESHADRI S, HIRODE K, NAIK P, MALHOTRA S: "Behavioral responses of young anemic Indian children to iron folic-acid supplements" XP002257665 retrieved from BIOSIS Database accession no. PREV198375074283
- D10: KOLETZKO B ET AL: "GROWTH, DEVELOPMENT AND DIFFERENTIATION: A FUNCTIONAL FOOD SCIENCE APPROACH" BRITISH JOURNAL OF NUTRITION, CAMBRIDGE, GB, vol. 80, no. SUPPL 1, 1998, pages S05-S45, XP009027350

V.2 Novelty and inventive step

V.2.1 All of documents D1-D10, alone or in combination, disclose that iron, zinc, B vitamins and polyunsaturated acids aid in the development of the cognitive performance of children. However, none of the cited prior art documents discloses compositions where the iron to zinc ratio is larger than 2. Thus, the claimed subject-matter is new (Art. 33 (2) PCT).

V.2.1 The current application does not mention any unexpected effect linked to the selection of the specific iron to zinc ratio. Moreover, the other additional features found in claims 1-15, such as the selection of specific bioavailable iron and zinc sources, or the selection of sources of polyunsaturated fatty acids having higher levels of DHA than EPA, are obvious options for the skilled person having knowledge of D1, D2, or of D3-D9 in conjunction with D10 (for more details, the reader is referred to the International Search Report). Thus, the current set of claims does not involve an inventive step in the sense of Art. 33 (3) PCT.

V.3 The subject-matter of claims 1-13 is industrially applicable in the sense of Art. 33 (4) PCT.

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NB: Should the Applicant wish to file amendments, the following is to be observed:

Amendments should be filed by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT. In particular, fair copies of the amendments should be filed preferably in triplicate.

In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, **the applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based** (see also Rule 66.8(a) PCT). These these indications should best be submitted in handwritten form on a copy of the relevant parts of the application as filed.